

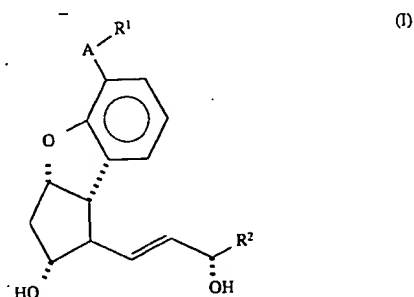
REMARKS

Claims 17 and 20-24 are pending and stand ready for further action on the merits. Claim 19 has been cancelled. The claims have been amended to improve clarity. No new matter has been added by way of the above-amendment.

Issues Under 35 U.S.C. §103

Claims 17 and 19-24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Isogaya et al., U.S. 5,508,303 (hereinafter the '303 patent).

Applicants respectfully submit that in view of the above amendment, Applicants have patentably distinguished the inventive compounds from the genus of compounds taught in the '303 patent. Specifically, the '303 patent teaches the following formula:

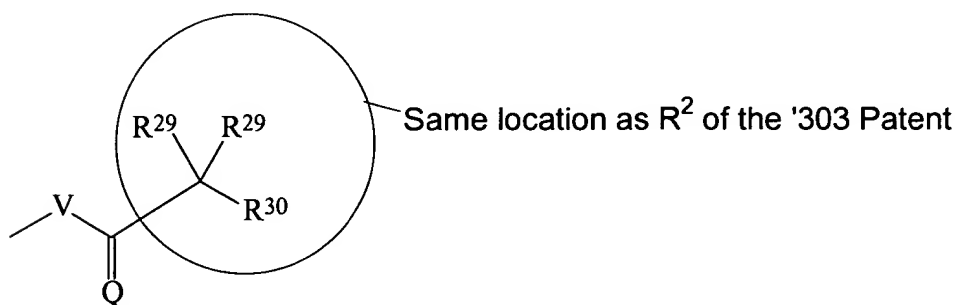


One distinction can be found in the possible groups encompassed by "R²" of this formula of the '303 patent. Specifically, the possible groups for "R²" are as follows:

R² represents

- (i) C₅-C₁₀ straight or branched alkyl group,
- (ii) $\text{---C}_t\text{H}_{2t}\text{---OR}^3$
(wherein t represents an integer of 1-5, R³ represents C₁-C₅ straight or branched alkyl group or phenyl group),
- (iii) $\text{---C}_t\text{H}_{2t}\text{---CH=C(R}^4\text{)(R}^5\text{)}$
(wherein t represents the same meaning as mentioned above, R⁴ and R⁵, the same or different, represent hydrogen, methyl, ethyl, propyl or butyl group), or
- (iv) $\text{---C}_t\text{H}_{2t}\text{---C}\equiv\text{C---R}^6$
(wherein t represents the same meaning as mentioned above, R⁶ represents hydrogen, methyl or ethyl group, and $\text{---C}_t\text{H}_{2t}$ in (ii), (iii) and (iv) represent straight or branched alkylene group);

As the Examiner will note, variable "R2" of Formula (I) of the '303 patent is equivalent to the following circled group in the genus of compounds encompassed by inventive claim 17:

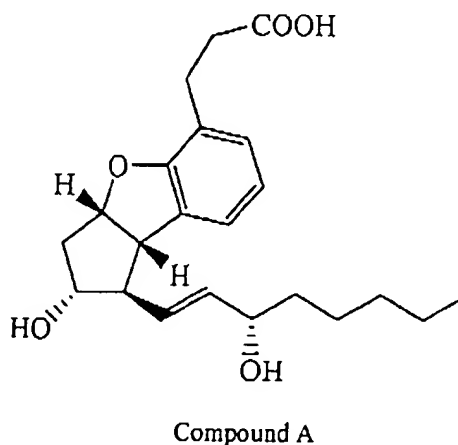
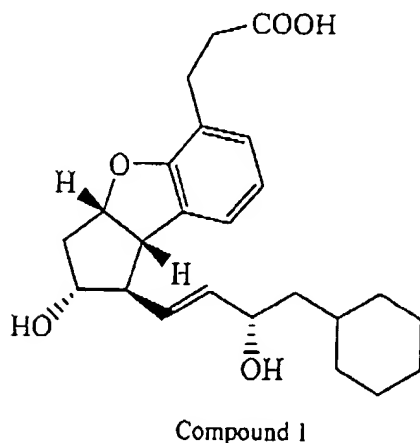


In the above formula, R³⁰ must include a C₃-C₁₂ cycloalkyl for a phenyl group.

As the MPEP directs, all the claim limitations must be taught or suggested by the prior art to establish a *prima facie* case of obviousness. See MPEP § 2143.03. Applicants respectfully submit that the '303 patent fails to teach or suggest all of the inventive claim limitations, since the '303 patent fails to teach or fairly suggest modifying the group "R²" to encompass a C₃-C₁₂ cycloalkyl or phenyl group. As such, a *prima facie* case of obviousness cannot be said to exist.

Assuming *arguendo*, a *prima facie* case of obviousness were to exist, Applicants respectfully submit that the inventive compounds have unexpectedly superior properties to the compounds encompassed by Formula (I) of the '303 patent. As evidence of these unexpected results, Applicants enclose herewith an executed Declaration Under 37 C.F.R. §1.132.

In the Declaration, compound 1 is compared to compound A for platelet aggregation-inhibiting activity.



In the above-compounds, the difference in the structure is located at the point in Formula (I) of the '303 patent defined by "R²". The inventive compound incorporates a methylenecyclohexane group whereas the compound encompassed by Formula (I) of the '303 patent incorporates a pentyl group. Compound 1 was found to have an IC₅₀(nM) of 410 whereas Compound A had a value of 7.3. Thus, bleeding or the like as a side effect caused by the excess inhibition of platelet aggregation is smaller in Compound 1 than with Compound A, so that Compound 1 is superior to Compound A as an agent for modulating growth or generation of hair.

Accordingly, even if the inventive compounds were suggested by the '303 patent, the unexpectedly improved reduction in platelet aggregation-inhibiting activity of Compound 1 over Compound A would not lead the skilled artisan to find the inventive compounds obvious. Accordingly, withdrawal of the rejections is respectfully requested.

Conclusion

In view of the above amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. However, should the Examiner find to the contrary, the Examiner is requested to enter this reply into the official

record to place the claims in better form for appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, PhD. (43,575) at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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